



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,363	07/31/2003	Bryan Youngpeter	10541-1658	2153

7590 11/29/2005

MacMillan, Sobansky & Todd, LLC
One Maritime Plaza
4th Floor
720 Water Street
Toledo, OH 43604-1619

EXAMINER

GILLAN, RYAN P

ART UNIT	PAPER NUMBER
----------	--------------

3746

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary	Application No.	Applicant(s)	
	10/631,363	YOUNGPETER ET AL.	
	Examiner	Art Unit	
	Ryan P. Gillan	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature enabling the flow control valve to rotate and therefore vary the size of the inlet, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. Claim 8 recites the limitation "the means" in line 1 of claim 8. There is insufficient antecedent basis for this limitation in the claim. It is unclear which means is being referred to as "the means," thus making it unclear as to what actually "comprises a coil spring."

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimura et al. (5,860,797) in view of Yokota et al. (6,041,883). Fujimura et al. teach a housing (1) defining a bore (Clearly seen in figure 2) having an axis, a fluid discharge port (18a) communicating with the bore at a first axial location, and a fluid bypass port (1a) having an opening communicating with the bore at a second axial location. Said bore comprising a first bore end and a second bore end and a pump outlet adjacent the first bore end (clearly seen in figure 3). A flow control valve (14) slideably received in the bore for opening and closing the fluid bypass port (col. 3 lines 40-43), said flow control valve defining an inlet for opening the fluid bypass port for admitting fluid thereto (col. 3 lines 40-54). The inlet having a size dependent upon the position of the flow control valve within the bore, wherein the flow control valve slides axially to vary the size to the inlet and contains a means for biasing the valve in the open position (col. 3 lines 40-54). The biasing means the means comprising a coil spring (17). Pumping

Art Unit: 3746

elements are disposed within the housing, said pumping elements comprising a cam chamber (12) and a rotor (5) having retractable vanes (11) disposed within the cam chamber. A plunger (16a) adjacent the second bore end and operatively connected to the flow control valve.

5. Fujimura et al. fail to teach a tubular extension sealing mounted onto the housing at said second bore end. A plunger disposed within the tubular extension and operatively connected to the flow control valve, and an electromagnetic coil disposed about the extension and adapted for applying an electromagnetic field to the plunger to vary the size of the inlet and thereby regulate the flow of fluid into the fluid bypass port. The extension including an end cap, and wherein plunger includes a rear end adjacent the end cap and a pressure equalization passage extending from the rear end and communicating with fluid adjacent the flow control valve. Fujimura et al. also fail to teach that the flow control valve rotates to vary the size to the inlet.

6. Yokota et al. (6,041,883) teach a tubular extension sealing mounted onto the housing at said second bore end. A plunger (37) disposed within the tubular extension (4, integral with the actuator) and operatively connected to the flow control valve (14), and an electromagnetic coil (4) disposed about the extension and adapted for applying an electromagnetic field to the plunger to vary the size of the inlet and thereby regulate the flow of fluid into the fluid bypass port (col. 6 lines 44-67). The extension including an end cap (36), and wherein plunger includes a rear end adjacent the end cap and a pressure equalization passage (39) extending from the rear end and communicating with fluid adjacent the flow control valve. It would have been obvious to one of ordinary

skill in the art at the time of the invention to modify Fujimora et al. to incorporate the electromagnetic coil of Yokota et al. operable connected to the plunger to regulate the flow of liquid into the fluid bypass port as a means of electronically controlling the valve in response to turning maneuvers of a vehicle (Abstract).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Miyazawa et al. (6,079,955) teach a variable displacement pump having a bypass passageway connected to a control valve.
- Kato (5,822,988) teaches a flow control device for a power steering apparatus.
- Narumi et al. (4,917,139) teach a flow control device for a power steering apparatus comprising a bypass passageway connected to a discharge port.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan P. Gillan whose telephone number is 571-272-8381. The examiner can normally be reached on 8:00 am - 4:30 pm; Monday - Friday.

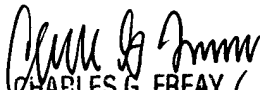
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RPG




CHARLES G. FREAY
PRIMARY EXAMINER